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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/052,553	01/23/2002	In Chul Jeong	0465-0838P-SP	5490
2292	7590	10/10/2003	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			STINSON, FRANKIE L	
			ART UNIT	PAPER NUMBER

1746

DATE MAILED: 10/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/052,553	Applicant(s) JEONG ET AL.	
	Examiner FRANKIE L. STINSON	Art Unit 1746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 11, 12, 17, 19 and 20 is/are rejected.
- 7) ☒ Claim(s) 10, 13-16 and 18 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>3</u> . | 6) <input type="checkbox"/> Other: |

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1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-6 and 20 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by either Muller, Geldhof et al. or Hubbard.
3. Claims 1-6, 19 and 20 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Fukumoto et al. (U. S. Pat. No. 6,282,928).
4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Muller, Geldhof et al., Hubbard or Fukumoto et al.'928 in view of either Zohler or Onishi et al.

Claims 7 and 8 define over the applied prior art only in the recitation of the circulation duct have helical grooves. Zohler and Onishi are both cited disclosing condenser tubes/ducts having helical grooves on the inner surface thereof. It therefore would have

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been obvious to one having ordinary skill in the art to modify the duct of either Muller, Geldhof, Hubbard or Fukumoto, to have helical grooves as taught by either Zohler or Onishi, for the purpose of increasing the surface area the duct, thereby increasing the efficiency of the condenser.

6. Claims 9 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muller, Geldhof et al., Hubbard or Fukumoto et al. in view of UK 2,075,559 (UK'559).

Claim 9 defines over the applied prior art only in the recitation of the external air supply.

UK'559 discloses the external supply as claimed. It therefore would have been obvious to one having ordinary skill in the art to modify the device of either Muller, Geldhof, Hubbard or Fukumoto, to include an external supply as taught by UK'559, for the purpose of increasing the efficiency of the condenser. Re claim 11, UK'559 discloses the outlet supplying the external air to the outer surface of the duct. Re claim 17, no patentable distinction is deemed to exist between the fan as claimed and the fan as disclosed by either Muller, Geldhof, Hubbard or Fukumoto (see MPEP 2144.06).

7. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over either Muller, Geldhof et al., Hubbard or Fukumoto et al. in view of Newton.

Claim 12 defines over the applied prior art only in the recitation of the fins. Newton discloses a condenser duct having fins. It therefore would have been obvious to one having ordinary skill in the art to modify the duct of either Muller, Geldhof, Hubbard or Fukumoto, to have fins as taught by Newton, for the purpose of increasing the efficiency of the condenser as is common in the art.

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8. Claims 10, 13-16 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. In Fukumoto et al.'342, Hirose et al., UK'826, Hildebrand, Willis, Brucken, UK'297, Behrens, Decatur, Candor, Johnston, Constantine, Neumann et al., Cline, and Taylor, note the washer/dryer means.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to FRANKIE L. STINSON whose telephone number is (703) 308-0661. The examiner can normally be reached during the first week of the pay-period M-F from 5:30 a.m. to 3:00 p.m. and during the second week of the pay-period from Tu-Th second from 5:30 a.m. to 3:00 p.m. and on Fri. from 5:30 a.m. to 2:00 p.m. Alternating Mondays off.

The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9310 (NON-FINAL REJECTION STATUS) and (703) 872-9311 (AFTER-FINAL REJECTION STATUS).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

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Any inquiry for missing parts of this Office Action (copies of references, pages, forms etc.), contact Office Manager Ms. Sandra Sewell (703) 308-0661.

fls



FRANKIE L. STINSON
Primary Examiner
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